AMENDMENTS TO THE CLAIMS

Claims 1-36 were pending. Claims 1-15 and 21-36 are withdrawn from consideration. Please amend Claim 16, as shown below, and add new Claims 37-51, as presented here.

1–15 **(Withdrawn)**

16. **(Currently Amended)** A device for measuring a concentration of ~~an analyte~~ one or more analytes in a liquid~~material~~ sample, said device comprising:

a separation device configured to separate the liquid sample into an analyte portion and a non-analyte portion;

an optical source configured to emit electromagnetic radiation in a range of about 4.275 to about 10.060 μm;

a detector positioned with respect to the source, so that the source and the detector define an optical path there between;

a sample element configured to support ~~a material~~ an analyte portion of the liquid sample in said optical path;

a first array of narrow band-pass filters disposed in said optical path between said sample element and said source, said first array of filters being configured to allow electromagnetic radiation of a first set of previously determined values to impinge on the sample element, the first set of previously determined values associated specially with a first analyte and one or more interferents to said first analyte; and

a second array of narrow band-pass filters disposed in said optical path between said sample element and said source, said second array of filters being configured to allow electromagnetic radiation of a second set of previously determined values to impinge on the sample element, the second set of previously-determined values associated specially with a second analyte and one or more interferents to said second analyte.

17. **(original)** The device of Claim 16, wherein the second set of previously determined values includes wavelengths selected from the group comprising: about 7.8 μm, about 8.3 μm, about 10.55 μm and about 10.7μm.

18. **(original)** The device of Claim 16, wherein the second set of previously determined values includes a wavelength of about 10.55 ±.2 μm.

19. **(original)** The device of Claim 16, wherein the first array of filters comprises an electronically-tunable optical filter.

20. **(original)** The device of Claim 16, wherein the second array of filters comprises an electronically-tunable optical filter.

21–36 **(Withdrawn)**

37. **(New)** The device of Claim 16, wherein a single filter wheel comprises said first and second arrays of filters.

38. **(New)** The device of Claim 16, further comprising a wavelength array.

39. **(New)** The device of Claim 22, wherein the wavelength array comprises information stored in a computer memory.

40. **(New)** The device of Claim 16, wherein the separation device is a fluid filter.

41. **(New)** The device of Claim 40, wherein the fluid filter is configured to separate plasma from whole blood.

42. **(New)** The device of Claim 40, wherein the separation device is a filter.

43. **(New)** The device of Claim 40, wherein the separation device is a membrane.

44. **(New)** The device of Claim 16, wherein the sample element is further configured to position in said optical path a plasma sub-portion of the analyte portion of the liquid sample.

45. **(New)** The device of Claim 16, wherein the separation device comprises a fluid passage.

46. **(New)** The device of Claim 16, wherein at least one of the first or second arrays comprises a solid state electronically-tunable filter.

47. **(New)** The device of Claim 46, wherein the solid state electronically-tunable filter is configured to cycle its pass-band among a variety of narrow spectral bands.

48. **(New)** A method of measuring one or more analytes in a liquid sample, said method comprising:

extracting a liquid sample from a sample source;

separating the liquid sample into an analysis portion and a non-analysis portion;

emitting electromagnetic radiation from a radiation source along an optical path through the analysis portion, the optical path ending at a radiation detector;

providing a sample element configured to position the analysis portion of the liquid sample in the optical path between the radiation source and the radiation detector;

providing a first array of narrow band-pass filters disposed in said optical path between said source and said sample element, said first array of filters being configured to allow electromagnetic radiation of a first set of selected values to illuminate the sample element, the first set of selected values selected to correspond to a first analyte and one or more first analyte interferents;

providing a second array of narrow band-pass filters also disposed in said optical path between said source and said sample element, said second array of filters being configured to allow electromagnetic radiation of a second set of selected values to illuminate the sample element, the second set of selected values selected to correspond to said second analyte and one or more second analyte interferents;

detecting the resulting radiation that reaches the radiation detector after passing through the first and second arrays of narrow band-pass filters and the analysis portion of the liquid sample;

analyzing the resulting radiation to obtain information regarding the one or more analytes in the liquid sample; and

saving the information in a memory.

49. **(New)** The method of Claim 48, wherein separating the liquid sample into an analysis portion and a non-analysis portion comprises filtering blood into a plasma portion and a non-plasma portion.

50. **(New)** The method of Claim 48, further comprising outputting the information regarding one or more analytes in the liquid sample to a display and indicating a concentration of at least one analyte.

51. **(New)** A device for measuring a concentration of one or more analytes in a sample, said device comprising:

a fluid filter configured to separate the sample into an analysis portion and a non-analysis portion;

an optical source configured to emit electromagnetic radiation;

a radiation detector positioned with respect to the source, so that the source and the detector define an optical path there-between;

a sample element configured to position the analysis portion of the sample in said optical path;

a first array of narrow band-pass filters disposed in said optical path between said sample element and said source, said first array of filters being configured to allow electromagnetic radiation of a first set of previously determined values to impinge on the sample element, the first set of previously determined values associated with a first analyte;

a second array of narrow band-pass filters disposed in said optical path between said sample element and said source, said second array of filters being configured to allow electromagnetic radiation of a second set of previously determined values to impinge on the sample element, the second set of previously-determined values associated with a second analyte;

a computer memory configured to store an algorithm for processing the output from the radiation detector to determine the concentration of the first analyte;

a microprocessor having configured to accept output from the radiation detector and perform the algorithm stored in the computer memory; and

a display configured to show the concentration of the first analyte.